



DATE: August 10, 2015

AGENDA ITEM #3

TO: Environmental Commission

FROM: J. Logan, Staff Liaison

SUBJECT: Community Choice Energy

RECOMMENDATION:

Receive report on Community Choice Energy

BACKGROUND

State and Local Mandates

State Assembly Bill 32, the Global Warming Solutions Act, was signed into law in 2006 and directed public agencies in California to support the state-wide target of reducing greenhouse gas (GHG) emissions to 1990 levels by 2020. In addition, California adopted ambitious energy and environmental policies to reduce state-wide greenhouse gas (GHG) emissions to 20% of 1990 levels by 2050 and, to provide 33% of electricity demands in 2020 from renewable resources utilizing clean energy technologies and environmental benefits.

To address the reduction of GHG emissions at the local level, the City Council adopted a Los Altos Climate Action Plan (CAP) on December 10, 2013. The CAP is a comprehensive strategy with goals and measurements to reduce GHG emissions within five focus areas: Transportation, Energy, Resource Conservation, Green Community and Municipal Operations. The CAP was adopted with a target of reducing the community's GHG emissions by at least 15% by 2020 and with an overarching plan for how the City can achieve up to a stretch-goal of 17% reduction in the GHG emissions by 2020.

Community Choice Energy

One method that has the potential to reduce the GHG emission associated with energy consumption is the establishment of Community Choice Energy (CCE), a system that allows cities, counties and Joint Power Authorities (JPA) to aggregate the purchasing power of an identified customer base within a defined area to secure alternative energy supply contracts with the goal of increasing the percentage of energy from renewable sources. The purchase of alternative energy supplies includes renewable sources such as hydroelectric, wind and geothermal as opposed to non-renewable fossil fuels such as coal, oil and natural gas. The consequences inherent in the use of fossil fuels to generate energy are particularly high carbon dioxide equivalents or GHG emissions which contribute to global warming. The ability to form CCEs has been adopted into law in California and a few other states.

In the 2005 Los Altos GHG Community Inventory baseline, residential and commercial electricity account for 18% of Los Altos community-wide GHG emissions. Reducing the GHG intensity of the electricity currently flowing through the PG&E grid by incorporating more energy from renewable sources is an effective way to directly reduce community GHG emissions. If by establishment of a CCE, Los Altos purchased electricity that was 25% cleaner than PG&E-provided grid electricity, the use of renewal-source energy could potentially reduce overall city emissions by up to 4.5%. If 100% renewable/clean energy were purchased, Los Altos emissions could be reduced by up to 18% and could attain the 2020 stretch goal of 17% reduction in GHG. As such, implementing a CCE has the potential to rapidly reduce community GHGs more so than any other measure currently identified in the Climate Action Plan.

It is noted that the GHG reductions by 2020 are only the first step in the State's GHG reduction goals. The state is proposing additional targets for 2030 and 2050. The initiative of establishing community choices to purchase energy produced by renewal sources is quickly becoming a viable option to achieve GHG reductions. Currently operating Community Choice Energy Programs can demonstrate savings to residents on energy bills and the attainment of sufficient GHG reductions to propel communities to reach short and long-term state goals for clean energy.

In July 2013, the City of Los Altos Environmental Commission explored the concept of GHG reductions that could be achieved by Community Choice Energy and is continuing to hear presentations on the topic and take action for recommendations to Council.

Current Actions

City Council convened a study session on Community Choice Aggregation (Energy) on March 10, 2015 and directed the following action:

Action: Council members directed staff to submit an energy load data request to PG&E and directed the Environmental Commission to further investigate Community Choice Aggregation (Energy) business models and specific goals to be achieved for the City through a Community Choice Aggregation alternative.

The energy load data request to PG&E along with the required and executed Non-Disclosure Agreement was emailed on March 11, 2015. Copies of the communications and documents were provided to City Council on April 8, 2015.

The full staff report and video of the Council CCE study session is posted on the City Website at http://los-altos.granicus.com/GeneratedAgendaViewer.php?view_id=4&clip_id=911

DISCUSSION

South Bay CCE Informational Session

On April 3, 2015 the City of Sunnyvale sent invitations to Santa Clara County cities to participate in the South Bay Technical Feasibility Study currently composed of and partnered by the Cities of Sunnyvale, Mountain View, Cupertino and Unincorporated Santa Clara County. This partnership is investigating the feasibility of a Community Choice Energy program for the South Bay which is planned to initiate this summer. Three staff members from the City of Los Altos attended the information session held on April 9, 2015 in the City of Sunnyvale. Also in attendance via phone webinar were Mayor Jan Pepper, and Environmental Commission CCE Subcommittee members Chair Gary Hedden and Commissioner Don Bray. The CCE Subcommittee provided an update on the CCE informational session they attended to the Environmental Commission.

CCE Subcommittee Activities

In accordance with direction given to the Environmental Commission by Council at the March 10, 2015 Study Session, the CCE Subcommittee convened meetings on March 12 and April 7, 2015 with Mayor Pepper and Staff Liaison J. Logan to formulate next steps to recommend at the April 13, 2015 Environmental Commission meeting and create a discussion document for the Environmental Commission to consider goals and the approach recommended by the CCE Subcommittee. The CCE Subcommittee recommended: 1) joining the South Bay Technical Feasibility Study; 2) convening a community stakeholder committee to guide the recommended study and to frame the CCE Goals and Options; and 3) formulating recommendations to Council for its April 28, 2015 meeting. The CCE Subcommittee lead this discussion at the April 13, 2015 Environmental Commission meeting and the Environmental Commission concurred with the recommendations.

At its April 28, 2015 meeting, Council received a staff report proposing CCE Goals and an Approach Plan to formulate and recommend a CCE business model. The April 13, 2015 Environmental Commission's direction and recommendations were incorporated into the staff report to Council. It was also recommended for the City to join the South Bay Technical Feasibility Study and a letter was sent on April 29, 2015 authorizing the use of electrical load data for the Study.

The Subcommittee met to review direction from the April 28, 2015 Council meeting and then presented a report to the Environmental Commission at its May 7, 2015 meeting. The Subcommittee received direction to move forward with the Study Approach Plan and report back to the Commission at its June 8, 2015 meeting.

Subcommittee activities in May and June

Between the May and July Environmental Commission meetings, the Subcommittee met weekly and convened phone conferences to discuss a list of predetermined questions and discussion points with: 1) the Mayor and the City Manager of Windsor, CA; 2) Peter Rumble, CEO California Clean Power; 3) Geof Syphers, CEO Sonoma Clean Power; Former Mayor of Cotati; and 4) met with two PG&E representatives regarding its green power and solar options. In addition, the Subcommittee convened many phone calls and sent emails to CCE resources and experts in order to better understand and define discussion points for interaction with speakers at its June 8, 2015 meeting. Peter Rumble, CEO California Clean Power, delivered a presentation at the June 8, 2015 Environmental Commission meeting. Members of the Subcommittee and the Staff Liaison attended the 2015 Energy Summit at Stanford University on June 25, 2015.

A Regular meeting of the Environmental Commission was held on July 13, 2015 and was immediately followed by a Study Session on CCE. Melody Tovar, Regulatory Programs Divisions Manager, City of Sunnyvale Environmental Services Department delivered a presentation on the Silicon Valley CCE Partnership. Members of the community provided comments and discussion followed. Subsequently the Subcommittee met on July 24, 2015 to review the results of the Study Session and plan its report on CCE Goals, the Study Approach Plan and progress updates for the August 10, 2015 Environmental Commission meeting and for the CCE Interim Report to Council on August 25, 2015. Staff will provide an update on progress of the Silicon Valley CCE Partnership.

Attachment:

- A. Community Choice Energy Study – Discussion Document – Study Goals and Approach; updated

Community Choice Energy Study

Interim Report

8/10/15 DRAFT

Los Altos Environmental Commission
August 2015

The Los Altos City Council has requested that the Environmental Commission study possible options for a Community Choice Energy program in Los Altos.

Study Objectives

- Clearly define and articulate City goals for a prospective Community Choice Energy (CCE) program
- Engage with energy experts and key stakeholders, facilitate CCE education, and identify key opportunities and issues to address
- Define possible options for implementing Community Choice Energy in Los Altos
 - join with South Bay CCE
 - contract with commercial provider of CCE services
 - advocate business/residential uptake of PG&E 'Green Tariff'
- Assess possible options relative to Los Altos CCE goals, and recommend a path forward
- Present context and rationale for continuing to pursue/not pursue Community Choice Energy in Los Altos

Assessment of Community Choice Energy options for Los Altos requires a number of related activities.

Recommended Study Approach

Organize

Establish
Sub-committee
and Approach

Recommend CCE
Goals

Frame CCE Goals & Options

Identify Key CCE Needs/Requirements, Issues,
& Weighted Evaluation Criteria

Develop Stakeholder Education and Engagement Approach
& Conduct Initial Activities

Research Public Entity CCE
Experience, and Engage with
Local CCE Process

Determine Potential
Involvement, Timing,
Planned Capabilities & Costs

Pre-Proposal
Meeting(s) with
Commercial CCE

Develop
Commercial CCE
Req'ts

Receive Indicative
Pricing

Meeting with PG&E to Establish
Green Tariff Timing and Rates

Determine PG&E Rollout
Approach and Anticipated
Uptake

Assess

Assess Options vs.
Criteria, Establish
Direction

▲ Council Updates
& approximate timing

▲ ~ We are here

▲ late April

▲ Oct/Nov

A key first step was identification of goals for a prospective Community Choice Energy program in Los Altos.

Community Choice Energy – Goals

- 1. Increase Use of Grid-Based Renewable Energy at a Price Advantage:**
 - provide residents and businesses with universal access to the highest possible percentage of renewable electricity, at a price advantage relative to current utility rates
 - provide residents and businesses with a choice for 100% renewable electricity at a competitive rate
 - move quickly to evaluate and lock in access to renewable electricity while prices are favorable
 - provide price advantage for the intermediate and longer term
- 2. Make Significant Progress on the CAP at a Low Burden to the City:**
 - achieve large-scale GHG reduction of 5,000–30,000 MTCO₂e (33-200% of CAP 2020 gap)
 - implement at low cost relative to other CAP measures, in terms of capital and staff resources
 - achieve predictable and quantifiable GHG reductions, and reduce/eliminate risk of not achieving 2020 CAP goal
- 3. Minimize CCE Financial and Operational Risks for the City and Customers**
 - operational costs fully recoverable
 - as applicable, provide sufficient city influence/governance of processes and offerings to meet specific City needs (e.g. standard offer, community solar, feed-in tariff)

The Environmental Commission CCE Sub-committee has been working actively to research Community Choice Energy programs, and options for Los Altos.

Recent Los Altos CCE Subcommittee Activities

Established Key Study Elements

- established research threads v/v three basic options – Local CCA, Outsource, PG&E
- development Los Altos CCE requirements/parameters

Interviews

- Staff and elected officials from Windsor, Cotati
- CEO of Sonoma Clean Power
- CEO of Marin Clean Energy
- CEO of California Clean Power
- CEO of Community Choice Partners
- PG&E – Sustainable Community Energy Manager, Government Relations

City Meetings

- 12 ~weekly sub-committee meetings
- three noticed EC meetings & study sessions, including engagement with community and local energy experts, and outside presenters from SVCCEP, California Clean Power
- presentations at two City Council Meetings

Subcommittee Participation in Related Events

- Stanford Energy Summit – including detailed CCE presentations from CPUC/Office of Ratepayer Advocates, Marin Clean Energy and Lancaster
- CLEAN Monthly CCA Market Call (multiple)
- Sunnyvale, Mountain View City Council Meetings

In our interviews, meetings and events to date, a number of important facts and common themes have emerged.

Some Key CCE 'Take-Aways'

General

- extensive statewide interest in this topic, many feasibility studies underway
- energy market continues to appear favorable for CCE formation
- strong citizen interest, and local/regional support
- while regulatory support is currently strong, regulatory environment and utility pricing policy remain fluid

Community Choice entities in Marin (MCE) and Sonoma (SCP) are operating very successfully

- significant GHG reductions and customer cost savings are being realized
- strong financial footing, and local projects under development
- for cities, level of sustaining effort is low, and satisfaction with CCE results is high

Silicon Valley Community Choice Energy Partnership (SVCCEP)

- pre-feasibility study recently concluded, technical feasibility study set to begin shortly
- led by Sunnyvale, Cupertino, Mountain View, and Santa Clara County; strong political support
- potential timing/role/involvement for Los Altos and other cities TBD

Commercial Outsource Option

- significant open questions regarding operating model
- requirements' will need to be specified in sufficient detail to obtain indicative pricing

PG&E

- new 'Solar Choice' Programs set to launch Q4 2015 or Q1 2016; anticipated 2-3 cent premium per kWh

City of Lancaster CCE

- newest California CCE is City (vs. County) based; Los Altos' scale insufficient for this option

'Default' CCE programs in Marin and Sonoma are saving customers [~3-9%] on their energy bills, and realizing [~15-49%] reductions in GHG emissions from electricity.

Existing CCE Programs are Performing Well



Marin Clean Energy (MCE) and Sonoma Clean Power (SCP) Financial Conditions

Both CCE Programs:

- Provide greener energy at competitive rates
- Provide enhanced energy programs
- Are fiscally sound

	MCE (Draft FY15-16)	SCP (Draft FY15-16)
Total Revenue	\$146M	\$165M
Expenses	\$141M	\$149M
Cost of Energy	\$129M	\$130M
Cost of Administration	4%	3.5%
Net Increase in Reserves	\$4.5M	\$16.9M



CCE PARTNERSHIP

Despite the successful start-up of CCE entities California, Community Choice Energy programs will continue to face risks that must be considered/mitigated.



What are the Risks...

And how are they mitigated?



Rate Competition/Market Fluctuation: Power market expertise and well crafted power RFPs are essential; Long and short term contracts; Diversified supply portfolio, power asset ownership and “value add” programs.



Customer Opt-Out: Competitive rates are a must; Articulate additional consumer and community benefits; Opt-outs in CA typically in 10%-20% range.



Political: Align CCA to local policy objectives; Appeal to both progressive and conservative minds by making the environmental AND business case; Robust community engagement is essential



Regulatory/Legislative: PUC decisions may adversely affect CCA, and proposed bills (eg: AB 2145) can change the original statute; Participate in the regulatory and legislative process.

There are several variables that significantly influence the price of energy offered via a community choice energy program.

Understanding and Balancing CCE Program Requirements

Renewable Energy	<ul style="list-style-type: none">• California's RPS defines what constitutes 'renewable energy'• Solar, wind, biogas, small hydro are renewable• Large hydro and nuclear are not
RE Category	<ul style="list-style-type: none">• RPS defines type and mix of renewables – Category 1, 2, 3• Cat 1 is coincident, California grid-connected renewables• Cat 3 are unbundled RECs from local or remote sources
Energy GHG Intensity	<ul style="list-style-type: none">• Renewables are generally GHG-free, as is large hydro and nuclear• Fossil fuel sources combined w/carbon offsets become GHG-free• PG&E grid mix at 0.427 lbs CO2/kWh in 2013
Local Energy Programs	<ul style="list-style-type: none">• A CCE entity can establish a level of funding for energy efficiency programs, feed-in tariffs, local generation, etc
Financial Reserve	<ul style="list-style-type: none">• A CCE typically builds a financial reserve, to manage price risk and reduce future financing costs
Staff Cost Set-Aside	<ul style="list-style-type: none">• A financial 'set aside' can be established to cover incremental City staff costs associated with a CCE, if any/applicable

In accordance with stated goals for Community Choice Energy in Los Altos, we have drafted general City requirements relative to a prospective three-tier CCE program.

Potential CCE Customer Offerings - Three 'Tiers'

CCE Customer Tariff Option

'50'

targeted ~50% reduction in GHGs from grid electricity with demonstrable customer savings, low level of local program investment – Default Option?

'100'

targeted ~100% GHG reduction in GHGs from grid electricity at price parity, with low level of local program investment – Default Option?

'100+'

100% GHG reduction via special tariff(s) focused on premium green power products, e.g. '100% local solar'

For each CCE option being studied, there are a number of key questions to address; we have initial answers to several of these questions, and some are still TBD.

Community Choice Energy – Key Study Questions

1. **Increase Use of Grid-Based Renewable Energy at a Price Advantage:**
 - what would 50% or 100% renewable power actually cost, under various CCE options?
 - ✓ does Los Altos have adequate scale/leverage to get good prices?
 - ✓ how is 'price sensitivity' to green power established among residents and businesses?
 - ✓ will CCE-provided renewable power remain cost competitive vs PG&E over time?
 - ✓ what will be the cost of 100% renewable power from PG&E?
2. **Make Significant Progress on the CAP at a Low Burden to the City:**
 - what would be the likely GHG reduction benefits of various CCE options?
 - ✓ what level of cost and staff time is required to implement and support CCE?
 - ✓ do we have the skills as a City to tackle this?
3. **Minimize CCE Financial and Operational Risks for the City and Customers:**
 - ✓ what are the risks to the City? to Customers? what risks are assumed by the CCA entity?
 - ✓ are these risks manageable, and how?
 - ✓ have other cities tried CCE and failed - or had significant difficulty?
4. **City Influence/Control in Delivering Green Power Offerings:**
 - how would residents and businesses be engaged in a CCE decision? implementation?
 - ✓ what level of control will the City have over CCE offerings?
 - can the City still earn community benefit funds, and how would residents like to see these used?

Next Steps:

- Determine any near-term actions/decisions required re SVCCEP, and work to define/support recommendations accordingly
- Continue to refine general scope of City requirements, as potential input to SVCCEP or other potential providers
- Place 'commercial provider option' on back burner; pursue indicative pricing if market evidence emerges that requirements for transparency, financial reserves, and long-term 3rd-party role can be met
- Support discussions at August 25th and Oct 27th Council meetings

Attachment: draft CCE requirements by tier

	50	100	100+
CCE Customer Subscription Tiers	"Opt-Down" option for customers seeking both greener power and a price break	Default option for customers seeking carbon-free power at a price similar or lower than PG&E	"Opt-Up" option for customers seeking 100% renewable energy from local/identified sources TBD, if any
Pricing/Target Rates	~3+% customer savings	competitive/parity	competitive/premium
GHG Intensity Target	~50% below PG&E avg over time (~0.22 lbs CO2e/kWh 2013)	Zero CO2e/kWh	Zero CO2e/kWh
% Renewable Energy (RE)	Minimum per RPS requirements and definitions, +10% (e.g. 43% by 2020)	Minimum per RPS requirements and definitions, +10% (e.g. 43% by 2020)	100%
Other RE Requirements	For RE, content categories per RPS compliance periods, min Cat 1, max Cat 3	For RE, content categories per RPS compliance periods, min Cat 1, max Cat 3	Category 1
Other Carbon-Free Sources	Large hydro, unbundled 'Green-e Certified' RECs, in-state and out of state sources	Large hydro, unbundled 'Green-e Certified' RECs, in-state and out of state sources	N.A.
Local Programs	Local program funding at ~0.5% e.g. FIT, efficiency;	Local program funding at ~0.5% e.g. FIT, efficiency;	Dedicated 100+ rate supports local development projects
Reserve/Credit Provision	Contribute ~3-5% of revenue annually to a reserve fund used for mitigating sudden price swings, risk, borrowing costs, etc.	Contribute ~3-5% of revenue annually to a reserve fund used for mitigating sudden price swings, risk, borrowing costs, etc.	Contribute ~3-5% of revenue annually to a reserve fund used for mitigating sudden price swings, risk, borrowing costs, etc.
Set-aside for City Administration	Set aside a small % of revenue to pay for incremental City staff time req'd to assist with CCE ops (if applicable)	Set aside a small % of revenue to pay for incremental City staff time req'd to assist with CCE ops (if applicable)	Set aside a small % of revenue to pay for incremental City staff time req'd to assist with CCE ops (if applicable)